

# 24<sup>th</sup> Congress of Chemists and Technologists of Macedonia

with international participation



## Program

**XXIV Конгрес на  
сојузот на хемичарите  
и технолозите  
на Македонија**  
со меѓународно учество



11-14 September 2016  
Ohrid, Republic of Macedonia

# P R O G R A M

**Sunday, September 11<sup>th</sup> 2016**

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17:00 **Registration**

19:30 **WELCOME PARTY**

**Monday, September 12<sup>th</sup> 2016**

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9:00 **Registration**

10:00 **OPENING CEREMONY** Hall BILJANA, Hotel METROPOL

**Hall BILJANA**

**PLENARY LECTURES**

Chairpersons: Svetomir Hadzi Jordanov and Ljupčo Pejov

10:30 **PANČE NAUMOV**

**Plenary Lecture PL-1**

New York University Abu Dhabi

**THE MYSTERY OF FIREFLY BIOLUMINESCENCE – SOLVED?**

11:10 **Break**

Chairpersons: Vladimir Ivanovski and Pance Naumov

11:20 **EVELINA SLAVCHEVA**

**Plenary Lecture PL-2**

Bulgarian Academy of Science, Sofia, Bulgaria

**ANION EXCHANGE MEMBRANE ELECTROLYSIS CELLS**

**– CLEAN COST EFFICIENT TECHNOLOGY FOR HYDROGEN PRODUCTION**

11:55 **THOMAS MAYERHÖFER**

**Plenary Lecture PL-3**

Friedrich Schiller University, Jena, Germany

**ULTRA-SENSING WITH SLIT-ENHANCED INFRARED SPECTROSCOPY**

13:30 **Coffee Break**

12:50 **VLADIMIR D. JOVIĆ**

**Plenary Lecture PL-4**

Institute for Multidisciplinary Research, University of Belgrade, Belgrade, Serbia

**ELECTRODEPOSITED COATINGS AS CATHODES FOR HYDROGEN EVOLUTION  
IN INDUSTRIAL CHLOR-ALKALI ELECTROLYSIS**

**Hall Tzar SAMOIL,**

Coordinators: Ruzica Manojlovic and Zagorka Koneska

13:30-18:30

**POSTER SESSION 1**

(please make sure to set up posters for this session from 10:30 to 13:30)

Electrochemistry (**EC**), Metallurgy (**ME**), Material Science and Technology (**MST**), Physical Chemistry (**PC**), Polymer Science (**PS**) and Spectroscopy and Structural Chemistry (**SSC**)

14:30 **Boat trip to St. Naum (or other Scheduled programs)**

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**Tuesday, September 13<sup>th</sup> 2016**

**Hall BILJANA**

**PLENARY LECTURES**

Chairpersons: Svetomir Hadzi Jordanov and Thomas Mayerhöfer

9:00

**CANER ZANBAK**

**Plenary Lecture PL-5**

Turkish Chemical Manufacturers Association

**SAFETY AND SECURITY CONCEPTS IN CHEMICALS MANAGEMENT AND  
PRIVATE/PUBLIC PARTNERSHIP IN CHEMICAL SUPPLY CHAIN SECURITY**

9:40

**AYHAN ORAL**

**Plenary Lecture PL-6**

Çanakkale Onsekiz Mart University, Çanakkale, Turkey

**PREPARATION AND CHARACTERIZATION OF GELATIN/GERANIOL  
ELECTROSPUN NANOFIBERS**

10:15

**Coffee break**

**HALL BILJANA**

**PLENARY LECTURES**

Chairperson: Koleta Zafirova

10:30

**KRSTE DIMITROVSKI**

**Plenary Lecture PL-7**

Faculty of Natural Sciences and Engineering, Ljubljana, Slovenia

**VORTEX YARNS – OPPORTUNITY FOR INCREASED MARKET  
COMPETITIVENESS**

11:10

**ILDA KAZANI**

**Plenary Lecture PL-8**

Polytechnic University of Tirana, Tirana, Albania

**MAINTENANCE OF ELECTROCONDUCTIVE FLEXIBLE SUBSTRATES**

12:40 **Break**

**HALL BILJANA**

12:10 **ORAL PRESENTATIONS**

Chairpersons: Ilda Kazani and Elena Tomovska

- **Eva Magovac, Sandra Bischof, Bojana Vončina**  
Sodium phytate – an alternative halogen free flame retardant for cotton
- **Ebru Bozaci, Esen Özdoğan**  
Basalt fibers and its applications
- **Jovan Stepanović, Dušan Trajković, Dragan Stojiljković, Dragan Đorđić**  
Predicting the behavior of needled geotextile materials in the region of elastic deformations
- **Tülay Gülümser**  
Durable fragrant finishing of textile materials
- **Sonja Jordeva, Elena Tomovska, Dusan Trajković, Koleta Zafirova**  
Some characteristics of an insulation structure from recycled apparel cutting waste
- **Aslı Demir**  
Antimicrobial agents in textile industry

14:00 **ORAL PRESENTATIONS**

Chairpersons: Evelina Slavcheva and Karmina Miteva

- **V. Stilinović, G. Horvat, T. Piteša**  
Experimental study and molecular dynamics simulation of solvent vapour effects on solid state phase transition in dibenzoylmethane
- **Iveta Boshnakova, Elefteria Lefterova, Evelina Slavcheva**  
Montmorillonite as a catalytic support for OER in water electrolysis
- **Gordan Horvat, Nikola Cindro, Leo Frkanec, Vladislav Tomišić**  
Thermodynamics of complexation of alkali-metal cations by calix[4]arene amide derivatives
- **J. Glassey, E. Schaer, A. Porjazoska Kujundziski, V. Meshko, L. M. Madeira, M. Polakovic, N. Kockmann**  
Assessment of teaching effectiveness in chemical engineering education
- **Mehmet Ali Oral, Osman G. Ersoy, İ. Ersin Serhatlı**  
Effects of polymer filler interface improvements on mechanical and physical properties of CaCO<sub>3</sub> filled polypropylene composite

- **G.I.Patronov, I.P.Kostova**

Synthesis and structure study of samarium doped zinc borophosphate materials

- **Nagihan Kaya, Derya Topkaya Taskiran, Serap Alp**

Synthesis and spectroscopic studies of new coumarin azlactone derivatives containing thiophene moiety

- **Ufuk Çoruh, Kaan Karaoğlu, Kerim Serbest, Ezequiel M. Vazquez Lopez**

The molecular structure determination of  $[\text{Cu}\{\{\text{h5-C5H5}\}\text{Fe}(\text{h5-C5H4})\text{-(H)C=N-N=C(H)-(naphthalen)}\}\text{2}]$

16:20 **ORAL PRESENTATIONS**

Chairpersons: Zagorka Koneska and Jane Bogdanov

- **S. Stepanovic, A. S. Nikolic, M. Zivkovic, F. Vlahovic, M. Zlatar, M. Kuraica**

The role of spin states in catalytic mechanism of the intra- and extradiol cleavage of catechols by  $\text{O}_2$

- **Semra Çoruh, Elif Hatice Gürkan, Yusuf Tibet**

Investigation of dye removal using travertine as an adsorbent: full factorial design analysis

- **Ali Özel, Jale Yanik, Suat Ucar, Ahmet Rasim Özkan**

Green diesel production

- **Majlinda Daci-Ajvazi, Lulzim Zeneli, Nexhat Daci, Dafina Hoxha, Sevdije Govori, Albana Mehmeti**

Low cost adsorbents for removal of organics and inorganics from standard solutions and natural waters

- **Savic, Ivana Nikolic, Tatjana Kundakovic, Ivana Savic-Gajic, Ana Tacic**

Modeling total flavonoids extraction from chickpea (*Cicer arietinum* L.)

**HALL TZAR SAMOIL**

Coordinators: Elena Tomovska and Karmina Miteva

12:30 – 17:30

**POSTER SESSION 2**

(please make sure to set up posters for this session from 10:15 to 12:00)

Analytical Chemistry (**AC**), Environmental Chemistry (**EN**) and Textile (**TX**)

20:00 **CONGRESS DINNER**

**Wednesday, September 14th 2016**

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**HALL BILJANA**

**PLENARY LECTURES**

Chairpersons: Bozidar Ristovski and Jana Simonovska

9:00 **JANE BOGDANOV**

**Plenary Lecture PL-9**

Institute of Chemistry, Faculty of Natural Sciences and Mathematics, Skopje, Macedonia

**HEXACHLOROCYCLOHEXANES- ENVIRONMENTAL FATE, CHEMISTRY AND DEHALOGENATION APPROACHES REVISITED**

9:40 **DARKO DIMITROVSKI**

**Plenary Lecture PL-10**

Faculty of Technology and Metallurgy, Skopje, Macedonia

**APPLICATION OF PROBIOTICS IN FOOD**

9:40 **VIOLETA IVANOVA-PETROPULOS**

**Plenary Lecture PL-11**

Faculty of Agriculture, University "Goce Delčev" – Štip, Krste Misirkov, bb, 2000 Štip, Republic of Macedonia

**APPLICATION OF ADVANCED SEPARATION TECHNIQUES IN WINE QUALITY CONTROL**

10:20 **Coffee break**

**HALL TZAR SAMOIL**

Coordinators: Darko Dimitrovski and Jane Bogdanov

11:20-15:00

**POSTER SESSION 3**

(please make sure to set up posters for this session from 9:00 to 12:00)

Biochemistry (**BC**), Bio - and Food Engineering (**BF**), Education (**ED**), Fuel and Energy (**FE**), Medicinal and Pharmaceutical Chemistry and Engineering (**MPCE**) and Organic Chemistry and Engineering Chemistry (**OCT**)

15:00 **CONGRESS CLOSURE**

15:00 **SPECIAL TOURS** (by appointment only)



**SOCIETY OF CHEMISTS AND TECHNOLOGISTS OF MACEDONIA**  
**XXIV Congress of SCTM, Ohrid 11 – 14 Sept. 2016**

	11/09/16	12/09/16	13/09/16	14/09/16
09:00	<div>Registration 11:00→</div>	Registration 9:00 → ...	<b>PL-5 C. ZANBAK</b> 9:00 – 9:40	<b>PL-9-J. BOGDANOV</b> 9:00 – 9:40
		<b>OPENING CEREMONY</b> 10:00 – 10:30	<b>PL-6 A. ORAL</b> 9:40 – 10:15 <i>10:15 – 10:30 Coffee break</i>	<b>PL-10 D. DIMITROVSKI</b> 9:40 – 10:20
10:00				
		<b>PL-1 P. NAUMOV</b> 10:30 – 11:10 <i>Break 11:10 - 11:20</i>	<b>PL-7 - K. DIMITROVSKI</b> 10:30 – 11:05	<b>PL-11 V. IVANOVSKA PETROPULOS</b> 10:20 – 11:00 <i>11:00 – 11:20 Coffee break</i>
11:00				
		<b>PL-2 E. SLAVCHEVA</b> 11:20 – 11:55 <i>Break 11:10 - 11:20</i>	<b>PL-8 I. KAZANI</b> 11:05 – 11:40 <i>11:40 - 12:10 Coffee break</i>	<b>POSTER SESSION 3</b> (BC, BF, FE, OCT, MPCE) 11:20 – 15:00 (Poster mounting time 9:00 – 12:00)
12:00				
		<b>PL-3 T. MAYERHÖFER</b> 11:55 – 12:30 <i>12:30 - 12:50 Coffee break</i>	<b>SHORT ORAL PRESENTATIONS 1</b> 12:10 – 13:40 <b>SHORT ORAL PRESENTATIONS 2</b> 14:00 – 16:10 <b>SHORT ORAL PRESENTATIONS 3</b> 16:20 – 17:20	<b>POSTER SESSION 2</b> (AC, EN, TX) 12:10 – 17:30 (Poster mounting time 10:15 – 12:00)
13:00				
	<b>POSTER SESSION 1</b> (EC, ME, MST, SSC, PC, PS) 13:30 – 18:30 (Poster mounting time 10:30 – 13:30)	<b>BOAT TRIP TO St. Naum</b> 14:30 – 17:00	<b>CONGRESS DINNER</b> 20:00	<b>CONGRESS CLOSURE</b> 15:00 <b>SPECIAL TOURS</b> 15:00 → By appointment
14:00				
15:00				
	<b>WELCOME PARTY</b> 19:30			

## SPONSORS

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The 24<sup>th</sup> Congress of SCTM was financially supported by:



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